EML

Environmental Measurements Laboratory

"A Federal Resource"

Programmatic Overview

Service To Other DOE Offices

As a federal resource laboratory, EML provides DOE offices with a readily available and objective in-house capability in support of their special and unique requirements. EML conducts authoritative and unbiased reviews and evaluations of proposals and provides expert consultation for the Office of Energy Research (ER), the Office of Environment Safety and Health (EH), and the Office of Nonproliferation and National Security (NN).

Descriptions

For ER, EML is responsible for creating, annually updating, maintaining and ensuring the quality of a database of all human subjects research currently funded by DOE.

For ER, EML manages the day-to-day operation of the Strategic Environmental Research and Development Program (SERDP), a partnership program (DoD, DOE, and EPA) that addresses the defense-related environmental priorities focusing on cleanup, compliance, conservation and pollution prevention technologies.

For EH, EML performed a pilot test of the American National Standards Institute Draft Standard N13.29, "Environmental Dosimetry Performance - Criteria for Testing," which covers performance testing of environmental dosimetry providers.

NN provides funding for research and development of field and laboratory based advanced analytical instruments and technologies, coupled with current techniques in sample collection and analysis and data reduction, to identify nuclear proliferation threats throughout the world and for advice and consultation on environmental measurements and signatures.

Activities and Accomplishments

- ***Published*** on the World Wide Web the FY 94-97 Human Subjects Research Database, making it readily accessible to the public at: *http://www.er.doe.gov/production/ober*
- ***Developed*** AUTORAMP II, a redesign of the original AUTORAMP, which has been in continuous operation since November 1997, and published a paper, "An Automatic Unit for Unattended Aerosol Collection, Gamma-Ray Analysis and Data Transmission From Remote Locations," in Radioactivity & Radiochemistry.
- ***Contributed*** to the development of U.S. policy on the analyses of environmental radioactivity for nonproliferation treaty monitoring.
- ***Member*** of the Radiation Detection Panel funded by NN-20 to identify research needs, review research proposals and results, respond to technical inquiries, and to make recommendations for present and future research programs.

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Activities and Accomplishments (con't)

- ***Member*** of the Radionuclide Workshop of the International Monitoring System Network to provide scientific recommendations to Working Group B of the Comprehensive Test Ban Treaty Preparatory Commission.
- ***Member*** of the Merit Review Panel of proposals for DOE's Atmospheric Chemistry Program.
- ***Completing*** a database identifying archived environmental samples collected since the 1950s in its global programs and conducting a survey for NN-20 of the scientific community to determine the availability of environmental samples collected near former nuclear weapons facilities.
- ***Reviewed*** SERDP new-start and continuing research projects.
- ***Completed*** a 5-month field test of the Pacific Northwest National Laboratory's Automatic Radioxenon Sampling and Analysis (ARSA) System's ability to sample and analyze xenon isotopes under a wide variety of environmental conditions and published a final report.
- ***Designing*** a tagged aerosol generator for testing of radioactive samplers/ analyzers.

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